

REMARKS

Applicants have studied the Office Action dated December 19, 2007, and have made amendments to the claims. Claims 1, 4, 13, 16, 18, 25, 28, 30, 35, 42, 51, 52, 53, and 71 have been amended. Claims 7, 11, 14, 15, 17, 26, 27, 29, 31, 33, 36-38, 40, 43-50, 57-70, 73 and 76-80 have been canceled without prejudice. No new matter has been added. It is submitted that the application, as amended, is in condition for allowance. Reconsideration is respectfully requested.

Request for Acknowledgment of Receipt of Foreign Priority Document

In a previous Office Action dated December 21, 2006, the examiner acknowledged the applicants' claim for foreign priority under 35 U.S.C. 119. However, the examiner acknowledged that only some of the certified copies of the priority documents were received.

Accordingly, the applicants' respectfully note that a certified copy of Korean Patent Application No. 10-2002-0057469, from which foreign priority is claimed, was submitted on March 19, 2004. Therefore, it is respectfully requested that the examiner acknowledge that all certified copies of priority documents have been received.

Rejection under 35 U.S.C. § 103

Claims 1-6, 8-10, 12, 13, 16-26, 28, 30-36, 39, 41-56, 59, 60, 63-67, 69-75 and 78-80 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0087653 to Leung et al. (hereinafter "Leung") in view of Applicant Admitted Prior Art (background of the invention in the application, hereinafter "AAPA"). This rejection is respectfully traversed.

As amended, the invention defined by independent claim 1 is a method for providing point-to-multipoint services comprising performing Internet protocol header compression to form header compressed data, wherein the Internet protocol header compression is performed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of a point-to-point manner and within a controlling radio network controller (CRNC) in case of a point-to-multipoint manner, and wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for each MBMS service in case of the point-to-multipoint manner.

Leung relates to an intermittent broadcast service that conserves bandwidth and other transmission resources of a wireless communication system. A trigger recognized at a

transmission node initiates a broadcast transmission, wherein a transmission path is set up. A termination trigger indicates that the transmission node is not serving a user desiring the broadcast transmission, and in response the transmission path is shut down.

Leung attempts to solve the problem of a conventional system, in which a PSDN performs a duplication procedure required in transmitting information to multiple users, which results in problems of resource allocation and loss of available bandwidth (see paragraph [0034] of Leung). Leung's invention includes having a BS or PCF perform the duplication procedure, to thus free up the PDSN or central packet router (see paragraph [0035]).

However, there is no teaching or suggestion in Leung about UMTS networks having a UTRAN with multiple RNCs, such as a CRNC and SRNC, which are explicitly recited in amended claim 1. Moreover, there is no disclosure in Leung of a combination wherein header compressed data is formed in a PDCP entity located within a CRNC, wherein one PDCP entity exists in the CRNC for each MBMS service in case of a point-to-multipoint manner.

Furthermore, AAPA fails to cure the deficiencies of Leung with respect to forming header compressed data in a PDCP entity located within a CRNC, wherein one PDCP entity exists in the CRNC for each MBMS service in case of a point-to-multipoint manner, as recited in claim 1.

Applicants respectfully submit that by locating the PDCP entity within the CRNC in case of the point-to-multipoint manner, a result of the claimed invention is that the total number of PDCP entities necessary for performing header compression/decompression and transmission/reception of compressed headers will be reduced. This is in contrast to the prior art wherein the total number of PDCP entities equals the total number of mobile terminals.

Accordingly, the applicants respectfully assert that the combination of Leung and AAPA do not teach or suggest the invention as claimed. Although the examiner relates an ROHC protocol and PDSN of the prior art to the PDCP protocol and CRNC of the claimed invention, respectively, the applicants respectfully submit that the prior art does not teach or suggest the PDCP entity located within an SRNC in case of a point-to-point manner and within a CRNC in case of a point-to-multipoint manner, as recited in claim 1. Furthermore, the prior art does not teach or suggest the point-to-multipoint service being an MBMS service and that only one PDCP entity exists in the CRNC for each MBMS service in case of the point-to-multipoint manner.

In view of this, it is respectfully submitted that claim 1, and the claims dependent from claim 1, are allowable over the combination of Leung and AAPA.

As amended, the invention defined by independent claim 18 is a method of receiving data of a point-to-multipoint service wherein header compressed data is formed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of a point-to-point manner and within a controlling radio network controller (CRNC) in case of a point-to-multipoint manner, and wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for each MBMS service in case of the point-to-multipoint manner.

For the reasons stated above with respect to claim 1, it is respectfully asserted the combination of Leung and AAPA does not teach or suggest the invention of amended claim 18. Accordingly, it is respectfully submitted that claim 18, and the claims dependent from claim 18, are allowable over the combination of Leung and AAPA.

As amended, independent claim 28 recites a radio network controller comprising a header compressing portion that performs Internet protocol header compression to form header compressed data, wherein the Internet protocol header compression is performed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of a point-to-point manner and within a controlling radio network controller (CRNC) in case of a point-to-multipoint manner, and wherein a point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for each MBMS service in case of the point-to-multipoint manner.

For the reasons stated above with respect to claim 1, it is respectfully asserted the combination of Leung and AAPA does not teach or suggest the invention of amended claim 28. Accordingly, it is respectfully submitted that claim 28, and the claims dependent from claim 28, are allowable over the combination of Leung and AAPA.

As amended, independent claim 35 recites a user equipment wherein header compressed data is formed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of a point-to-point manner and within a controlling radio network controller (CRNC) in case of a point-to-multipoint manner, and wherein a point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for each MBMS service in case of the point-to-multipoint manner.

For the reasons stated above with respect to claim 1, it is respectfully asserted the combination of Leung and AAPA does not teach or suggest the invention of amended claim 35.

Accordingly, it is respectfully submitted that claim 35, and the claims dependent from claim 35, are allowable over the combination of Leung and AAPA.

As amended, the invention defined by independent claim 42 is a method for providing point-to-multipoint services wherein Internet protocol header compression is performed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of a point-to-point manner and within a controlling radio network controller (CRNC) in case of a point-to-multipoint manner, and wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for each MBMS service in case of the point-to-multipoint manner.

For the reasons stated above with respect to claim 1, it is respectfully asserted the combination of Leung and AAPA does not teach or suggest the invention of amended claim 42. Accordingly, it is respectfully submitted that claim 42 is allowable over the combination of Leung and AAPA.

As amended, the invention defined by independent claim 51 is a method of providing Internet protocol header information wherein compression of Internet protocol header information is performed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of a point-to-point manner and within a controlling radio network controller (CRNC) in case of a point-to-multipoint manner, and wherein a multimedia broadcast/multicast service (MBMS) is provided to a plurality of terminals and one PDCP entity exists in the CRNC for each MBMS service in case of the point-to-multipoint manner.

For the reasons stated above with respect to claim 1, it is respectfully asserted the combination of Leung and AAPA does not teach or suggest the invention of amended claim 51. Accordingly, it is respectfully submitted that claim 51, and the claims dependent from claim 51, are allowable over the combination of Leung and AAPA.

As amended, the invention defined by independent claim 71 is a wireless communication system for providing Internet protocol header information wherein header compression of Internet protocol header information is performed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of a point-to-point manner and within a controlling radio network controller (CRNC) in case of a point-to-multipoint manner, and wherein a multimedia broadcast/multicast service (MBMS) is provided to

a plurality of terminals and one PDCP entity exists in the CRNC for each MBMS service in case of the point-to-multipoint manner.

For the reasons stated above with respect to claim 1, it is respectfully asserted the combination of Leung and AAPA does not teach or suggest the invention of amended claim 71. Accordingly, it is respectfully submitted that claim 71, and the claims dependent from claim 71, are allowable over the combination of Leung and AAPA.

CONCLUSION

In light of the above remarks, Applicants submit that the present Amendment places all claims of the present application in condition for allowance. Reconsideration of the application, as amended, is requested.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California, telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,
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Date: March 17, 2008

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